# Claims

1-20. (Cancelled)

21. (Currently Amended)  A method for adjusting output power for a transmitter, the method comprising:

~~transmitting a plurality of packets at a first output power;~~

determining whether a first error rate associated with ~~the~~ a transmission of ~~the~~ a plurality of packets at ~~the~~ a first output power exceeds a threshold error rate;

responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power;

determining whether a second error rate associated with the transmission of the plurality of packets at the second output power is less than the first error rate; and

responsive to the second error rate being less than the first error rate, dithering the output power for the transmitter below the first output power until a target error rate is achieved.

~~transmitting the plurality of packets at a third output power, wherein the third output power is less than the second output power;~~

~~determining a third error rate associated with the transmission at the third output power; and~~

~~determining whether the second output power is a desired output power based at least in part on a comparison between the first error rate and the second error rate and a comparison between the second error rate and the third error rate.~~

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently amended)   The method of claim 21, ~~wherein~~ <u>further comprising initially</u> determining the first error rate <u>by</u> ~~comprises~~ measuring a number of failed acknowledgments of transmitted packets.

26. (Currently Amended)  A method for adjusting output power for a transmitter, the method comprising:

transmitting a plurality of packets at a first output power;

determining a first error rate associated with the transmission of the plurality of packets at the first output power;

comparing the first error rate to a predetermined error rate value; <u>and</u>

responsive to ~~determining that~~ the first error rate <u>being</u> ~~is~~ greater than the predetermined error rate value<u>:</u>[[,]]

transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power;

determining a second error rate associated with the transmission at the second output power;

transmitting the plurality of packets at a third output power, wherein the third output power is ~~less~~ greater than the second output power; ~~and~~

determining a third error rate associated with the transmission at the third output power; and

~~determining whether the second output power is a desired output power~~ based at least in part on a comparison between the first error rate[[,]] ~~and~~ the second error rate, and ~~a comparison between the second error rate and~~ the third error rate, setting the output power for the transmitter.

27. (Currently Amended) The method of claim 26, wherein setting the output power for the transmitter comprises, if the second error rate is less than the first error rate and the third error rate, then ~~further comprising~~ adjusting the second output power until a desired ~~value of the second~~ error rate is reached.

28. (Currently Amended) The method of claim 26 wherein setting the output power for the transmitter comprises, if the third error rate is less than the first error rate and the second error rate, then ~~further comprising: determining~~ adjusting ~~whether~~ the third output power ~~is~~ until a desired error rate is reached. ~~output power based at least in part on a comparison between the first error rate and the second error rate and a comparison between the third error rate and the second error rate.~~

29. (Canceled)

30. (Canceled)

31. (Previously Presented)  The method of claim 26, wherein determining the first error rate comprises measuring a number of failed acknowledgments of transmitted packets.

32. (Previously Presented)  The method of claim 26, wherein the transmission at the first output power is associated with a variable data rate.

33. (Previously Presented)  The method of claim 32, wherein the first error rate, the second error rate, the third error rate, and the predetermined error rate value are associated with the variable data rate.

34. (Previously Presented)  The method of claim 26, wherein the transmission at the first output power, the second output power, and the third output power is associated with a variable                                        data                                        rate.

35. (Previously Presented)  The method of claim 34, wherein the first error rate, the second error rate, the third error rate, and the predetermined error rate value are associated with the variable data rate.

36. (Currently Amended)  A system for adjusting output power for a transmitter, the system comprising:

a transmitter configured to transmit a plurality of packets at a first output power; and

a processor configured to perform at least the following:

determine a first error rate associated with the transmission of the plurality of packets at the first output power;

determine whether the first error rate is greater than a predetermined error rate;

responsive to the first error rate being greater than the predetermined error rate, cause the transmitter to transmit the plurality of packets at a second output power, wherein the second output power is less than the first output power;

determine a second error rate associated with the transmission at the second output power;

cause the transmitter to transmit the plurality of packets at a third output power, wherein the third output power is ~~less~~ greater than the ~~second~~ ~~first~~ output power;

determine a third error rate associated with the transmission at the third output power; and

identify a desired output power based at least in part on a comparison between the first error rate, ~~and~~ the second error rate, and ~~a comparison between the second error rate and~~ the third error rate.

37. (Currently Amended)  A system for adjusting output power for a transmitter, the system comprising:

means for transmitting a plurality of packets at a first output power;

means for determining a first error rate associated with the transmission of the plurality of packets at the first output power;

means for transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power;

means for determining a second error rate associated with the transmission at the second output power;

means for transmitting the plurality of packets at a third output power, wherein the third output power is ~~less~~ greater than the ~~second~~ first output power;

means for determining a third error rate associated with the transmission at the third output power; and

~~means for determining whether the second error rate is lower than the first error rate;~~

~~means for determining whether the third error rate is lower than the second error rate; and~~

means for identifying ~~the second output power as~~ a desired output power based at least in part on a comparison between the first error rate, ~~and~~ the second error rate, and ~~a comparison between the second error rate and~~ the third error rate.


38. (Currently Amended) The system of claim 37, further comprising:

means for identifying the second output power as a desired output power if the second error rate is lower than at least the third error rate; and

means for identifying the third output power as ~~a~~ the desired output power if the third error rate is lower than at least the second error rate.


39. (Previously Presented)  The system of claim 37, wherein the plurality of packets is transmitted in accordance with an IEEE 802.11 protocol.


40. (Currently Amended)  A tangible computer readable storage medium encoded with instructions capable of being executed by a computer to ~~perform~~ adjust output power for a transmitter adjusting for improved transmitter performance, ~~the adjusting including at least the following~~ wherein the instruction, when executed, cause the computer to perform operations comprising:

transmitting a plurality of packets at a first output power;

determining a first error rate associated with the transmission of the plurality of packets at the first output power;

transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power;

determining a second error rate associated with the transmission at the second output power;

transmitting the plurality of packets at a third output power, wherein the third output power is ~~less~~ greater than the ~~second~~ first output power;

determining a third error rate associated with the transmission at the third output power; and

determining whether the second error rate is lower than the first error rate;

determining whether the second error rate is lower than the third error rate; and

identifying a desired output power based at least in part on a comparison between the first error rate, and the second error rate, and a comparison between the second error rate and the third error rate.

41. (New) The method of claim 21 further comprising responsive to the second error rate being greater than the first error rate:

transmitting the plurality of packets at a third output power, wherein the third output power is greater than the second output power;

determining a third error rate associated with the transmission at the third output power;

if the third error rate is less than the first error rate, then dithering the output power for the transmitter above the first output power until a target error rate is achieved; and

if the third error rate is greater than the first error rate, then restoring the first output power as the output power for the transmitter.

42. (New) The method of claim 41:

wherein dithering the output power for the transmitter below the first output power until a target error rate is achieved comprises adjusting the output power up and down

in steps until the target error rate is achieved, wherein, at each step, the output power for the transmitter is less than the first output power; and

wherein dithering the output power for the transmitter above the first output power until a target error rate is achieved comprises adjusting the output power up and down in steps until the target error rate is achieved, wherein, at each step, the output power for the transmitter is greater than the first output power.


43. (New) A method for adjusting output power for a transmitter, the method comprising:

determining whether a first error rate associated with a transmission of a plurality of packets at a first output power exceeds a threshold error rate;

responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power;

determining a second error rate associated with the transmission at the second output power;

based at least in part on a comparison of the first error rate and the second error rate, determining that transmission distortion is a cause of the first error rate exceeding the threshold error rate; and

responsively setting the output power for the transmitter below the first output power.